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The Province of Alberta

IN THE MATTER OF "THE NATURAL
GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into
Scheme to be adopted for Gathering,
Processing and Transmission of
Natural Gas in Turner Valley

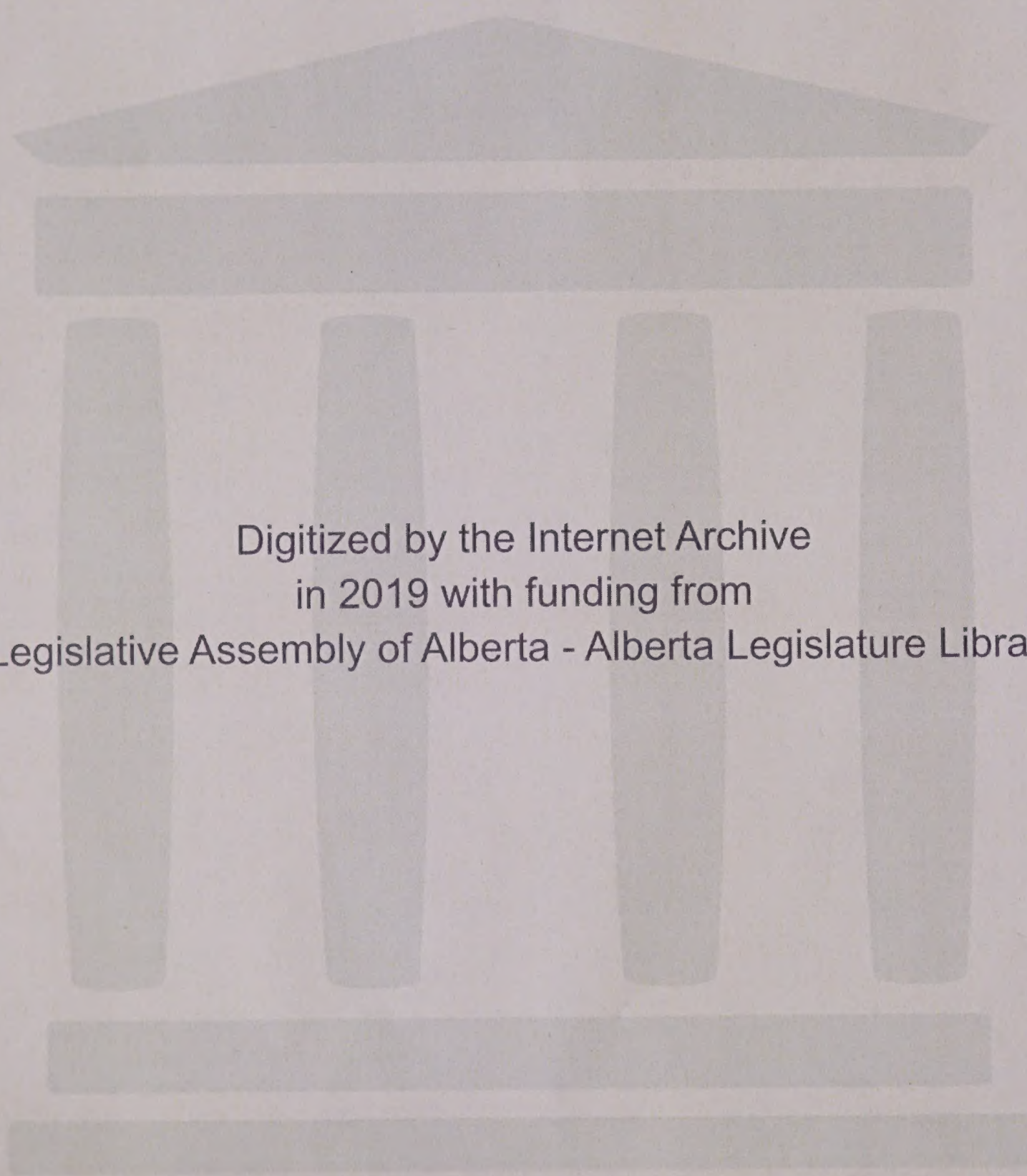
G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta December 4th, 1945

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I N D E X

VOLUME 56

December 4th, 1945.

W I T N E S S E S

ANDREW STEWART (Continued)

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ANDREW STEWART, having been recalled,

Cross-Examination by Mr. Chambers, Continued:

THE CHAIRMAN: All right, Mr. Chambers.

Q MR. CHAMBERS: Professor Stewart, I would like to refer back again for a few moments to the index prices for producers' goods as shown in the Canada YearBook and you will agree that producers' goods are goods largely of the nature that are used in the construction of plants such as those in Turner Valley.

A Yes.

Q Now these figures are from page 786 of the Canada Year Book for 1943-44 and for the purposes of the record I will read them. They are the index prices for producers' goods taking the year 1926 at 100: 1913, 67.7; 1920, 164.3; 1922, 98.8; 1926, 100; 1929, 96.1; 1933, 63.1; 1939, 70.4; 1940, 78.7; 1941, 83.6; 1942, 88.3 and 1943 95.1. The year 1943 is as far as the Year Book goes. Now the average, you will note, Professor Stewart, that in the year 1920 the index was the highest, 164.3.

A Yes.

Q And that obviously represents the inflationary period after the First Great War.

A And some wartime increases.

MR. BLANCHARD: I wonder if you would speak up.

WITNESS: Yes. The 1920 figure is 164.3 which reflects both the wartime increases and the increase in the year or two after that war.

Q MR. CHAMBERS: Now you will note that the average of those index prices which I have given you, taken at these intermittent years from 1913 to 1943, works out at 91.4,

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assuming my arithmetic is correct.

A Yes.

Q And that the average, if we leave out the years 1913 and 1920, the average of the other 9 figures is .86.1. Now would you say that the index figure for 1945, if we had it, would be higher than that, would you hazard any venture?

A I think probably 1945 would be increased in the index. 1945 would be higher than 1943.

Q Well now then what I am getting at is this, we take a situation where there is legislative enactment passed in 1944 which has the effect of bringing under regulation or devoting to the public service, property and a business which was previously unregulated and was not in the category of an utility as then defined, and we have a Board that is applying regulation under that statute for the first time, what would you say as to the fairness and by fairness I mean in the sense that you have developed it, of that Board using reproduction costs based on the 1943 figures.

A May I look at the 1943 figures, please?

(Document handed to witness).

WITNESS: Yes; thank you. I would consider them, I would be reluctant to go so far as to say that the full reproduction cost would be fair and proper on that basis. There had been a rise preceding that and we are into the war period. Now on the basis of past experiences, as indicated by the figure, it is true that the post-war period prices are higher than they were in the pre-war 1913 year but they were lower than during the war period, that is the post-war period represented some reversion from the war period. Now it might be that in

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1945 prices were still higher than in 1943 but you have some indication of the effect of the war period as between 1939 and 1943 so I am not sure that I would go so far as to say that the full amount of those reproduction costs on the 1943 basis would be fair.

Q Now in that connection do you mean that you would hardly think it would be fair if you were going to assume a fixed rate

A Yes, that was implied of course and it was discussed yesterday.

Q Then taking the figures given prior to 1943, would you suggest that if the Board was to apply a reproduction cost figure with the idea of having a stable rate base for the future

A Yes.

Q Would you suggest any particular one of those years or somewhere in between, some of those years?

A I would not care to answer that offhand, Mr. Chambers. I think, - there are only certain specific years included in there. They are taken at unequal intervals and I would like to see the complete ceiling and have time to work it different ways I think.

Q Well in fairness to myself I should say I took those years because they are the ones shown in the book.

A I see.

Q But as I understand it you can get, if you want to, from the Department, those for each year.

A That is possible, yes.

Q I see. Will you look at the index figure for 1941 and we find it is 83.6.

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A Yes.

Q As compared to the 1926 figure. Now that 83.6 for 1941 is less, you will observe, than the average of those figures from 1922 to 1943; would that be a significant factor, the relation of the year 1941 to the average for those years.

A Yes, I think it would be one of the factors to be taken into consideration. Of course in any case, Mr. Chambers, we use these figures merely as a guide to our expectations of the future.

Q That is right.

A And one of the difficulties there is that history never repeats itself and while, maybe, that is one of the best guides which we have, that is past experience, it does not necessarily follow that we must accept that as a completely satisfactory guide for the future.

Q Yes, but I gathered from your Exhibit 131 and from what you said yesterday, that the adopting of the reproduction cost new, for the purposes of fixing an initial rate base which is to be constant for the future, is qualified in its application by two things: one, the direction from which the regulation comes - that is in this particular case the Legislature.

A Yes.

Q And second, whether the time at which it is applied is at a period of the top or peak prices, is that right?

A Yes, I think I said "high prices" but it implied something towards peak prices.

Q High prices?

A Yes.

Q And it is with that in mind that I wanted to get the benefit

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of your views as to the present situation and I am suggesting to you this, that those are important factors in considering whether we are at a time of peak prices, taking the long range view and you will agree that the Board, in dealing with that matter, should take a fairly

A Yes.

Q Should take a fairly long-range view.

A Yes.

Q And I am suggesting that the factors which are significant are these: That from the period 1922 to 1943 the index average is 86.1 compared with 95.1 in 1943 and we had in that period an extreme, depression period, you will agree with that?

A Yes.

Q And we have also the fact that during this war there have been controls which will to some extent at least we think, and reasonably think, will prevent a situation such as happened after the last war. Those are two factors and the third factor is we have the labor situation, and a new tax situation, that will affect the picture after the war as well as now.

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Q What I am suggesting is that those three factors would probably indicate that we are, not now - in 1943 I am taking - in a transitory period of high prices. Now what do you say as to that proposition ?

A Well I think all of the factors you have referred to are significant and would have to be taken into consideration in the final judgment. With your permission I am unwilling to commit myself without further study as to the particular year.

Q But you do agree that those are factors that would enter into a weighing of the situation ?

A Those are all relevant factors.

Q Here is another factor that occurs to me and I would like your view as to whether you think it would have any bearing. You will agree that the War-time controls in the States were not applied until some time after ours ?

A That is correct, yes.

Q And it is general knowledge that they were not as effectively applied as in our country. Would you go that far ?

A Yes I think so.

Q And in other words during the war years there has been more inflation in the States than there has been up here ?

A Yes.

Q And I therefore suggest that in the United States there will probably be more of a tendency for increased prices to follow the war than there would be here ?

A That was argued yesterday that the effectiveness of our controls during the war period would prevent the collapse of prices later. I think it would follow too there that if the United States has been less successful they are more likely to experience a severe decline in prices for that very same reason.

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Q Would you suggest that there is apt to be in the United States a fairly steep and I am using that word for want of a better term, drop in prices ?

A I think the chances are greater of such a movement initiating in the States than here, because of the larger inflationary disturbances during the war.

Q Now on Page 9 of your Exhibit 131 when you are talking about the matter of fairness, as I understand it you state that, conformity to expectations reasonably held appears to be a significant attribute of fairness. Then you also state I think in the paragraph following that, results under regulation will not conform to results reasonably expected during the prior period of absence of control. Now would this be a fair statement that a company or a person carrying on a private business and then brought under regulation by legislation that his expectations would be changed ?

A Yes.

Q In other words the rules of the game under which he has been carrying on business have been changed and that I suggest is a factor which should be taken into consideration in applying for the first time regulation. Would you agree to that ?

A Yes.

Q Now Prof. Stewart, would you turn again please to Page 24 of Exhibit 131.

MR. BLANCHARD: What page ?

Q MR. CHAMBERS: Page 24 of Exhibit 131. Under the heading of fairness to investors. Under that clause:

"On grounds of equity, therefore, there would appear to be a strong case for determining the initial rate base by reproduction cost ."

And one of the reasons as I understand you to say is that

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because of the change in the rules or change of expectations, would that be fair ?

A Yes, that statement is predicated upon the preceding sentence which reads, -

"Despite inconsistencies and uncertainties in regulatory processes, it appears that in the past more consideration has been given to reproduction cost than to the alternative original cost."

Now if that is not a correct statement of fact then what follows is not valid, but I believe that to be so.

Q Well would you go this far with me, that irrespective of whether that statement were so, let us assume there were no rules you see. I am suggesting to you that in view of the fact that the investor's expectations has been changed through no fault of his own that that constitutes an equitable ground for determining the rate base on present day reproduction cost new and I am not asking you to commit yourself to all these qualifications. Later on I am going to deal with that.

A I think that would depend upon two things proceeding from the assumption that there were no prior assumptions with regard to the methods of rate base determination. I think it would depend first of all on whether the results of regulation improved on the reasonable expectations or not which they might very well do. That is when I say that the subsequent results are not necessarily the same as reasonable expectations I do not necessarily imply by that that the circumstances of the utility are always adversely affected if coming under regulation. In the second place I think it would depend upon the conditions at the time. If we were in a period of severe depression I would be inclined to say it would be a little

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unfair to the utility to insist upon reproduction cost under these conditions. You see what I am trying to do Mr. Chambers. To use general principles which can be laid down which will provide a frame work of reasonable expectations for people. Principles of that kind cannot be determined in the immediate situation on the basis of particular conditions. They have to be determined on the assumption that there will be changing conditions. That at some periods one procedure will be more favourable than another, and in other periods and in other times the alternative procedure will be more favourable. But from the point of view of the general principles the peculiar circumstances of the special time should not affect the general principles being laid down.

Q The following statement on Page 24. You go on to say, -

"However two points should be considered.

First, if this position is accepted it is clear that the time at which any business is brought under control will be an important factor in determining the permissible earnings of the utility."

We talked about that.

"If the business is brought under regulation during a period of high prices and costs and a rate base immediately determined by reproduction cost, the rate base and permissible earnings will be high. On the other hand, if the business is brought under regulation when prices and costs are low, and the rate base is immediately determined by reproduction cost, the rate base and permissible earnings will be low."

Then take the next two paragraphs, -

"The direction from which the movement to bring the business under regulation is initiated, then becomes relevant."

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That is if the Legislature imposes its will without the utility asking for it ?

A Yes.

Q "Assuming immediate determination of the rate base, if the business is brought under public utility control by legislation introduced during a period of relatively high prices, it might seem to be 'fair' to present investors to determine the rate base by reproduction cost. On the other hand, if a business is brought under control in a period of low prices, it might 'fairly' claim the more favourable original cost."

Then you use these words,-

"This leads to the conclusion that in 'fairness' to present investors, when regulation is imposed by legislation, the utility might be permitted to select the method of rate base determination which appeared most favourable to them. This would tend to make original cost the minimum and reproduction cost the maximum."

I think we dealt with this yesterday. But I want to get the position clear as to what you mean by that last paragraph ?

A You will notice that the paragraph in its content and meaning is modified by the succeeding discussion. At that point we have assumed that if reproduction cost is used in the initial valuation it continues as the basis for rate base determination. Now under the paragraph following the words "Second" which is underlined there, I point out that if following the initial determination you then apply continuously the actual cost, the conclusion would be modified under the different assumptions.

Q No, but as I understand it that is this last paragraph that in the event and when regulation is first imposed is it your

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view that the utility or company being regulated for the first time should have the right to choose which one of those bases should be used ?

A Provided you are going to continue on the basis so selected.

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Q Well, do you mean by that that if the Company selects the reproduction cost then it should be made subject to the fluctuating rate base, take the good with the bad?

A Yes. My proposition is that the reproduction rate base would be a reasonable rate base for the initial determination if the utility was going to stay on the reproduction cost basis, but that that conclusion has to be modified if you are going to change after the initial rate base determination to actual cost.

Q In other words, you say that the method upon which the initial rate base is constructed will govern the future, should govern the future practices?

A No sir, I am not saying that. I think it would be quite possible to accept the original historical actual cost basis as the permanent principle to be applied, but to say in the case of initial determination in view of the fact, if that has perhaps not been recognized as the accepted basis, you would give consideration to reproduction cost. But my conclusion would be if the initial rate base were made in a period of high prices and then you were going to shift to the actual cost basis, that you would be giving too much of a concession to the investors to give them the full reproduction costs at the high level of prices.

Q I see. We discussed yesterday, I read to you yesterday, Professor Stewart the report of the McGillivray Commission?

A Yes.

Q And that it in fixing the rate base in the Fall of '38, or in its judgment of '39, I think it was, has adopted reproduction cost new, and you know that that report had to do with the property in Turner Valley?

A Yes.

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A Yes.

Q And you know that what this Board has under consideration here is the Turner Valley property?

A Yes.

Q And I am asking you to assume with me that since the report of the McGillivray Commission a considerable portion of this property, which is now being considered by this Board, has been constructed. Would you say that that decision or basis used by the McGillivray Commission should be a matter to be considered when we come to estimate the reasonable expectations of the investor in spending his money in this property in Turner Valley since 1938?

A Yes, I would. I think that the earlier case, without suggesting that I have any detailed knowledge of it.....

Q Oh yes?

A But the mere occurrence of the earlier case should have affected the reasonable expectation of other people in the general area in two ways. It should have, I think, increased the probability in their minds of coming under regulation, and it should have established a reasonable expectation that if that occurred reproduction cost would be used. It would have that tendency I should think.

Q Well, now, turning to another phase of your report, Professor Stewart, on page 14, under the "Going Concern Principle", "There seems to be no doubt that the rate base should take into account the fact that the utility is an organized and operating business and not merely an aggregation of units of physical properties." And then on page 15, and I am drawing these to your attention for the purpose of a discussion I propose to have;

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" It appears that if, under reproduction cost procedure, the appraised value is arrived at by applying current prices to all existing plant, adequate allowance is made for overheads and working capital,, no addition to the rate base attributable to going-concern value can be reasonably supported."

And then going on to pages 16 and 17:

" It should be noted that the problems of 'going-concern value', 'goodwill', and 'intangibles' are closely related; and it is possible to conceive of these values as having arisen out of the unusual efficiency of the utility. Thus the property of a utility might, as a going concern, have unusual value in exchange because it has been highly successful and has built up an organization of outstanding efficiency. The success of particular utilities in building up customer 'goodwill' may differ greatly; and in specific cases 'goodwill value', which would then be closely similar to 'going-concern value', would result from unusual efficiency. Similarly, a utility may secure a franchise in a community in which the prospects of successful operation are uncertain. Having taken chances, and through efficient operation established a successful business, the right to operate within the area has value.

It has previously been contended that the community has the right to expect that its utilities are efficiently operated, and under public utility control it is the intention that an efficiently operated utility should be able to earn the allowed return through the rates established. But there is a danger, if the rate base includes

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"nothing more than the appraised value of the physical properties (plus overheads and working capital), that, in particular cases, utilities, coming under regulation, will lose the fruits of the special efficiency with which the utility has been operated.

Consideration of this point would throw on the regulating board the problem of judging the efficiency with which the utility has operated in the past."

Now, in the light of those statements, I am going to put this proposition to you, and ask you to make certain assumptions, and if some of the assumptions affect your answer, why I would like you to say. Now, assume with me, Professor Stewart, that the present-day prices, and I am talking about 1943 prices in this particular case, used by the appraiser were those of a large organization in the same analogous businesses throughout the Continent, which large organization by reason of its varied and widespread activities could acquire and purchase materials by reason of quantities cheaper than an operator established in just one system. That is one assumption.

The second assumption I am going to put to you is this, that in the design and the operation of the plant the utility had the benefit and the use without charge of the engineering experience of that larger organization responsible. That is the second one. And also assume that the appraiser allowed in arriving at his figure, or included overhead charges at 9%, which is admittedly not a high figure. That is the third assumption.

The fourth one, the appraiser in making his estimate of present-day cost new, that is 1943, allowed or made deductions for the relative inefficiency of 1943 labour due to war conditions,

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and that nothing was included specifically for the cost of having acquired or contracted for the connected gas supply. Now, you got those assumptions did you?

A I am trying to hold them.

Q Now, the first one was, that the appraiser used prices of this larger organization which was built by its buying power, and quantities and so on, to get a price somewhat lower than an individual building this plant alone, you see?

A And these lower prices were actually used in the appraisal?

Q Yes. That is the first assumption, and that he included nothing for the engineering experience, etc., which was afforded by this larger Continent-wide organization. That is the second one. And only included 9% for overhead, that is interest during construction, engineering, taxes during construction, which we will assume that is a very low per cent?

A The 9% would cover engineering?

Q Yes?

A Including the engineering advice obtained?

Q No, there was no charge put in for that engineering advice.

A But it is implicitly a 9%?

Q Ordinary engineering advice, yes. And he made an allowance for the inefficiency of 1943 labour in the installation of the plant, you see. He included nothing for cost of the company having acquired a connected gas supply and so on. I am asking you on that basis, on the basis of those assumptions, would you say that a reproduction cost new of a system now being valued for the first time under regulation, compiled on that basis contains or has made adequate allowance for going-value or going-concern value?

A Well I would say, Mr Chambers, that with regard to the factor of efficiency, which is emphasized here as providing some presumption

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in the case of high level efficiency, that something more should be included than the going valuation. I would say that with the conclusion that something more should be added. It does not necessarily follow from the assumptions that you have laid down, although they do provide some presumption that they might possibly do so. That is, I do not think it is conclusive of it but it might provide some presumption that an additional element of value might be considered.

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Q Would you say that they are factors worthy of consideration.
Will you go that far?

A Yes.

Q THE CHAIRMAN: Then how would you measure it in
terms of money.

A I am afraid that is a question that I am not able to answer,
Mr. Chairman. As I indicated in the submission, it seems
to me that it is a problem of judgment. I cannot even
measure the effect of the assumptions that you have made now.
I say they create a presumption of efficiency but I do not
know of any way to measure the effect of those and say whether
it was quantity so much and it is therefore a deserved assump-
tion.

Q MR. CHAMBERS: Yes. In giving effect there would
have to be some specific evidence as to the extent of those
various factors.

A That would certainly help in the judgment.

Q Now whether reproduction cost new or historical cost new is
used, the figure so arrived at represents the appraisal of
the value of the new plant, would it not?

A Well we will assume that is so.

Q Now as however in this particular case the Plant is not in
fact a new one, that plant will have to be depreciated.

A Yes.

Q Whether we take reproduction cost or whether we take the
historical cost.

A Yes.

Q On page 4 of your brief, in the third paragraph I think it
is, you refer to depreciation as being of two types, first,
structural and (b) functional. And then you go on to say:

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"But their significant effect is the same in each case, namely a reduction in value."

A Yes.

Q Now then I put this to you that in order to arrive at the present-day value of the plant that is being regulated for the first time that the cost new of such a plant should be depreciated or devalued by or to the extent first of all that the existing plant has structurally deteriorated by wear and tear.

A That is one of the factors.

Q And it should also, as I understand it, be depreciated or devalued to the extent that it has suffered obsolescence or functional depreciation.

A Yes.

Q And as I understand it, structural depreciation is the physical deterioration in or the wearing out of the plant itself. Is that right?

A Yes, that is satisfactory.

Q On the other hand, functional depreciation is the reduction in value of the new plant which is due first of all to obsolescence which is caused by new methods and new types of machinery and more efficient machinery, that would be one thing?

A Yes.

Q And it is also due to the inadequacy or excess capacity of the plant to do the job that it is intended to do.

A You can define obsolescence to include those considerations as well.

Q Is this a fair way to put it, and I am trying to make sure that I have your terms clearly, that functional depreciation

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can be said to include both obsolescence and this question of inadequacy or excess capacity.

A We will define it that way, yes.

Q And as I understand it in other words depreciation is the extent to which the actual existing plant falls short of what a new and up-to-date plant will be, would that be a fair way to put it?

A In principle, yes. The practical approach to the question raises practical problems. I think you can either measure obsolescence by comparing the cost of reconstructing the identical plant.

Q I am coming to that.

A Or substituting a more efficient up-to-date plant. That would be one way. The other procedure would be to go into the plant and appraise the plant as it is and to depreciate the various structures, taking into account the obsolescence in each case. Now in principle perhaps these might not give you very different results but I think they might quite well give you different results, however, because the comparison of the completely new structure with the existing physical facilities might involve a much greater transition than the reproduction of certain parts of the existing plant because of obsolescence. But in my view, the practical procedure would be to appraise the property as it is, taking obsolescence into consideration in the valuation of the particular part. My reason for that is that the procedure of comparing an entirely different and substitute plant is too hypothetical. That is a practical consideration.

Q But no matter which method you use, the objective is, or your desired objective is the same. What we are trying to

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get at is to measure the extent to which the plant now there falls short of what a new and up-to-date plant would be. Is not that the objective?

A In general I agree, yes. That would be satisfactory.

Q Now the extent of the actual physical or structural depreciation in a particular plant which, as you have told me, is due to wear and tear can, as I understand it, be pretty well gauged or estimated by a competent engineer by carefully and thoroughly inspecting it, who makes a complete examination of the property.

A I would qualify that in one way. I think that there is a tendency, and this seems to be a generally accepted fact, that there is a tendency for observed depreciation to underestimate the extent of physical deterioration. For the very obvious and simple reason that depreciation based upon inspection is dependent upon observation, that is what you can see. Now there is very generally a degree of depreciation that is unobservable. That is, this light bulb might blow out tomorrow but looking at it as it is now it is just as good as new. You could not detect that deterioration. For that reason there is, I think, a general tendency for observed depreciation to underestimate the full extent of the deterioration.

Q Would not a lot depend on the man making the inspection?

A I would certainly agree with that too.

Q And that appraisal of wear and tear by an engineer or a competent person, by actual inspection, that is what you mean by the term observed depreciation?

A Yes.

Q Then we have this question of functional depreciation, which

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involves more than a mere inspection of the property itself, I mean in order to gauge it.

A Yes, it implies a knowledge on the part of the appraiser of alternative techniques.

Q As I understand it, in order to assess the extent of functional depreciation, the appraiser in addition to inspecting the property must make some inquiry or have some knowledge as to approved machines and inventions and so on?

A Yes.

Q That would be one thing?

A Yes.

Q And he must give consideration to whether the present plant is too big or too small for the job that lies ahead of it.

A If we wish to include that under obsolescence.

Q I was including it under functional depreciation.

A Yes, all right then.

Q Going back just for a moment to that matter of observed depreciation, where you said a lot depended on the man making the inspection. If he was competent and wanted to be fair in dealing with the question of the light bulb, he should make inquiries as to how long it had been in there should he not?

A That would be relevant I should think.

Q And an engineer that did that kind of thing would - if we know he proceeded that way, you would give more faith to it than to somebody who made a sort of a horseback examination.

A Yes, I think evidence of a thorough examination and inquiry would create confidence more than a superficial examination would do.

Q Turning back now to functional depreciation. That matter

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of functional depreciation brings up this question of an identical or a substitute plant. You deal with that on pages 13 and 14 of your report. I refer particularly to the paragraph commencing at the bottom of page 13. I am not going to take the time to read it.

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Q As I understand it, that can be done in two ways, make a reproduction cost, new basis, on the actual plant which is there, and then allow your depreciation on account of its functional depreciation, that is one way, or the other way is for you to take or decide on what would be a model plant if it were put in today in the light of the knowledge, all the knowledge you have, and you take that cost new, but not depreciated for obsolescence, is that what you mean by that paragraph?

A Yes.

Q And then on page 17 you state that when the reproduction method of appraisal is applied "the appropriate procedure appears to be to determine depreciation by inspection".

A Yes.

Q Now do you include in that inspection that question of functional depreciation?

A Yes.

Q The wider meaning of "inspection"?

A Yes.

Q Not merely looking at the plant?

A No, I mean appraisal of the plant.

Q Yes, and if the reproduction cost new figure is of that identical plant which has been there rather than a substituted model plant, such depreciation should include and allow for structural depreciation and functional depreciation?

A Yes.

Q And if on the other hand the reproduction cost new figure is based on or is for a substituted and technically new plant, no allowance for obsolescence should be made in arriving at the net rate, that is your proposition?

A Yes. They would be duplicate, if you considered them both

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ways and included the deduction on both bases.

Q You would be making a double deduction for obsolescence?

A Yes.

Q And that sort of thing?

A Yes.

Q And on page 7, I am dealing now with this question of wasting assets, you state that it is reasonable to conclude that the owner would not undertake this investment without seeing the possibility of recovering the full amount of the plant investment?

A Yes.

Q And secondly, that it would be sound practice to transfer or depreciate the plant investment to income account or to reserve at the rate at which the raw material is used up, and then you go on further down to state that in the event of when such a plant is likely to be appraised for public utility regulation, "The appropriate method for arriving at depreciation would appear to be to calculate depreciation as if the investment had been transferred from capital account at the rate at which the raw material had been used up."

A Yes.

Q Now if we are using reproduction costs for the purpose of arriving at an initial rate base, when regulation is being applied for the first time, do you suggest that these bases should be used or how does that reconcile with your previous statement that observed depreciation is the proper method when the reproduction cost method is used?

A Well the general discussion in this submission does not deal with what I call here "the special case of a wasting asset". It assumes continuity of life and perfection indefinitely, whereas where the operations are depending upon an exhausting

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asset, there is an entirely new situation which enters in and consequently the recommendations in the submission here are not similar in this paragraph to these others because of the special conditions.

Q So that the previous statements there when you said that, when the reproduction cost method of appraisal is applied the appropriate procedure appears to be to determine depreciation by inspection, that is a general statement, but you would intend that, in this particular case, to be qualified by what you say in the case of a wasting asset?

A Yes.

Q Well I suggest to you, Professor Stewart, that that procedure or method would not really be an accurate or scientific method of measuring or allocating depreciation as described or explained by you on page 4 of your report, and to go back to page 4 you talk about structural depreciation and functional depreciation, what do you say as to that proposition?

A Well again I have to merely repeat that we are dealing with a special case, when an entirely different consideration comes in. I can conceive it to be quite possible to appraise a property by inspection and to reach a valid conclusion that it is as good as new physically and has suffered no obsolescence because there has been no technical development and yet that plant cannot have more than say a couple of years' useful life because there is only a limited supply of the materials available. It would be entirely unreasonable under those conditions to include in the rate base the full, undepreciated value of the plant and equipment.

Q The full undepreciated?

A Yes.

Q You mean depreciated by observed depreciation?

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- A My assumptions were that there is no observed depreciation but I can quite well conceive it happening. It is an extreme illustration, of course, but it illustrates my point, which is, namely, that the maximum useful life of the structure is dependent upon the supply of the material.
- Q Well suppose there is no plant there, and it was considered in the public interest that this gas should be recovered and used for the public, and you put a new plant in, would not the public, under the rate in this case, have to pay the entire, present-day cost new of that plant?
- A Under your assumption I think your conclusion is correct.
- Q And one of the factors in considering whether that is a valid assumption or not would depend, would it not, on whether there is enough gas there to warrant the construction of the plant and to enable it to handle and sell the product at a price reasonable to the consumer, to the public, would that not be so?
- A Yes, and a price to cover, to recover, to enable the investor to recover his investment over the anticipated life.
- Q Well what I am getting at is this, assuming that the job to be done would warrant a new plant, assume that for the moment?
- A Yes.
- Q Now if I, the owner of the property already there.....
- A I am sorry I missed that.
- Q Assuming that the situation is such that it would warrant a new plant being put in as if there was no plant there?
- A Yes.
- Q What I cannot understand, or I find it difficult to understand, is this, that I, under a similar set of circumstances, have a plant capable of doing the job, it is down there, I am putting it in and making it available to the public, instead of the

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public building a new plant, why should the public get the benefit of any more than the reduction in value of that plant over the new plant by reason of depreciation as you have described it on page 4?

A Well I am not sure that this is a complete answer, but I think it is at least a partial answer to the question, that at the time that the investment was made the investor must have had a reasonable expectation of recovering their investment over the whole expected life of the asset and it is naturally reasonable then to suppose that they would, during the life of the asset, make provision for the recovery of their investment.

Q In other words then, do you suggest that, in equity, the owner of the existing plant, should pass on or share with the public who is now brought into the picture, the investment which he has amortized in the past because he has written it off?

A I do not quite understand how you mean "share".

Q Well.....

A "With the consumer", I think he has already got it from the consumer.

Q No, but he got it under a matter of, under private enterprise?

A Yes.

Q While carrying on in his own way?

A Yes.

Q Now then, as the matter is being devoted to the public service a new set of circumstances arise, because the consumer now under regulation, as I understand it, has an indirect interest in the operation, other than the operating charges and capital charges the consumer is entitled to the benefit of the operation, is he not?

A He obtains a service.

Q Yes, but is he not entitled, after operating expenses are paid

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and after capital charges, fair capital charges as fixed by the regulatory board, is it not so that the consumer is to get the benefit of the excess earnings?

A You mean if the rate has been set so high that the earnings are in excess of the allowed rate then action will later be taken to correct that?

Q Yes?

A That is the rates would be reduced if it seemed probable that such conditions existed.

Q Yes, what I am suggesting, Professor Stewart, to you is this, that the effect of regulation is to bring the consumer into the position where he has an indirect interest in that operation, in that he is going to get the benefit of the excess earnings of that business over an allowed or a fixed or a regulated rate of return?

A Yes, he may also have to pay more if the rate of return, the rates fixed are not sufficient.

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Q But is it your understanding that under regulation in any case that he cannot be asked to pay more than reasonable value of the service given ?

A That is the object of the regulation to achieve that.

Q Well getting back to this other point again. Now would you agree with me in this, that the past losses or profits suffered or made by the operator of the plant prior to regulation should not affect the present net value of the plant or the present rate base to be used for the first time ?

A Yes I agree with that.

Q Now why is that a sound principle ?

A Well I think that in general the answer would be that bygones are bygones and you simply start from the existing position and it would be an unsafe general principle to base the immediate decisions upon mere past experience. Now that I take it is not inconsistent with the position I have suggested with regard to the fact of depletion in the case of a wasting asset. I merely suggest it was reasonable in that case at the present time to assume that the utility has made provision for the recovery of its investment over the expected life of the field.

Q Suppose it has not ?

A That is just too bad.

Q Suppose its business is such that there was not enough earnings to make any provision for return of investment ?

A That likewise is unfortunate, but these things happen. I mean when the investor invests his funds he takes a risk. You cannot get away from that, and I do not consider any part of the function of regulation to enable investors to avoid risks. That is, avoid losses and yet give them the benefit of all the

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favourable conditions that develop.

Q Then, Prof. Stewart, as I understand it you say in a plant of such a nature as this, by turning over to the utility for the first time the new plant, you would of course put the full cost in the rate base, a new plant built now ?

A Yes, but in presenting a question earlier you said if conditions would warrant it ?

Q Yes, that is implicit in my question.

A If the conditions warranted it and there being no old plant that would be reasonable.

Q You say if I supply the second hand plant or a plant already installed that had already processed some gas in that same area, that I should take a figure somewhat less and that that reduction should not be based upon the extent to which the plant had fallen short of being a new one due to wear and tear and also functional depreciation ? That is in effect your.....

A Yes, that is my conclusion.

Q And you in effect say then that a present rate base fixed for the first time would depend to a certain extent on the amount of gas that has been handled by the plant prior to regulation ?

A Yes I would rather put it, the amount which is still remaining. I think that is the important factor. What is in the bottom of the bottle, Mr. Chambers, is much more important to me than what has gone out of it.

Q Yes, but from the standpoint of the owner the amount that has gone through is most important, using your formula, is it not ?

A Well no, that would vary with the extent of the depletion which had occurred. It is a proportionate problem is it not ?

Q Yes, but my proposition is so is it not that you would depreciate the rate base under these circumstances by an amount

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

• Explain the effect of the following factors on the rate of reaction:

• *Heute* (today) is pronounced "Hoyte".

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depending to a certain extent on what gas has been handled in the past ?

A Yes, the depreciation is related to that, the value of course is inverse and is more related to what is left. And that is really the value for the purpose of rate base is what we are trying to get at and my contention is that is directly related to the amount of reserves which determine the expected useful life. Mr. Chambers, I might say that I do not know all of the conditions in this particular case and my statements are of a general kind. I am not thinking of the particular conditions here, because I do not know them all.

Q But I do suggest to you, Prof. Stewart, that a rate base fixed by applying that principle which you have set forth on Page 7 (Exhibit 131) with respect to the wasting assets that would depend to some extent on the accident of how much business this company did under private regulation. Is that a true statement?

A Well I am not sure that I approve of the word "accident". I think it is a matter of consideration at the time of the investment and assuming that the decisions with regard to rate of use and so on were made at that time, that is not entirely an accident.

Q It is an accident so far as the consumer is concerned, is it not ?

A I still do not like the use of the word, but all right I will say yes.

Q Now I suggest to you that if the consumer or the public under regulation should not be expected to underwrite prior losses or to share in the prior profits, that similarly they should not have their rate base increased due to the unfortunate circumstances of the owner prior to regulation having conducted very

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little business, and on the other hand that they should not benefit by its having had a lot of business through his plant. In other words I am suggesting to you that the principle of past losses and past profits and the principle of depreciation on the basis of throughput are analogous ?

A I think the case would be the reverse of what you suggested Mr. Chambers. Would you mind repeating the statement ?

Q I say that if the principle is sound that the consumer should not make up the losses suffered by the owner prior to regulation and should not share in the profits that he has accumulated prior to regulation, that on the same basis he is not entitled to share in having a smaller rate base merely because the utility had a lot of business in the past, nor should he be obligated to underwrite a high rate base because the utility lost in the past. I suggest one principle is sound and the other must be too.

A Well I think the consideration there is still what is left and we have to find some way to determine a rate base in relation to what is left. Now I suggest the reasonable basis is that if half of it was left and half is gone the property has been in effect depleted by one half of its value.

Q You would at least agree with this, Prof. Stewart, that the application of that method which you suggest on Page 7, would not in any case be an accurate measurement of the depreciation you are talking about on Page 4 ?

A Yes we are dealing with a special case, with special considerations involved and I can see no more reasonable basis than that which I have suggested. I am not considering it so much on grounds of equity as on grounds of its effect and any other basis would I think under not infrequent conditions give quite

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absurd effects. That is if you had the sort of case where there was little observed depreciation either in terms of structural depreciation or obsolescence when you were at the point where the reserves were practically exhausted and regulation was imposed at that stage to attempt to put the full new value of the property in the rate base would give completely absurd results in terms of the rates that you would have to charge.

Q Well I am making a counter-suggestion in a situation of that kind, if that were so the Legislature would not in the public interest have imposed legislation. Is that not a fact ?

A Not necessarily. It could conceivably be.

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4419 left out

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Q Well now, what would you say as to this proposition, Professor Stewart, that existing depreciation or valuation for appraisal purposes based merely on the proportion of volume for past throughput to the total estimated is unfair and unsound in that if the estimated future volume of throughput is admittedly conservative, the present deduction for depreciation would be too great and the excess deduction now made for rate base purposes would never be restored to or recovered by the utility company. What would say as to that?

A Well I can conceive of that situation developing and in the end reaching the position where, because of the conservative estimated reserves, and assuming that the plant was depreciated on the basis of the estimated reserves, that you would come eventually to this position where there are still reserves and your rate base be completely eliminated. I can see that happening.

Q That is right. And it would have the effect of now, in setting up the original rate base

A Yes.

Q That the deduction now is more than it would be if we knew exactly what the picture is in the future, assuming that we are taking what is known as a conservative figure.

A Yes, a deliberately conservative figure.

Q Yes.

A Why should we, Mr. Chambers? Why be deliberately conservative?

Q Well, let me say this to you, assume that the Board has evidence of various engineers.

A Yes.

Q Petroleum engineers.

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A Yes.

Q And they all say, "Well now, we make this estimate. We consider it to be conservative, on the safe side." Suppose that is all the evidence this Board has as to these reserves. I am suggesting to you to employ the method which you suggest on page 7 in arriving at this present rate base, to apply that without any qualification, might very well result in an element of unfairness to the utility?

A It would certainly result in a lower rate base than if the estimate was higher.

Q And the lower rate base means dollars and cents to the original investment?

A On the other hand it does, of course, reduce the risk so far as the investors are concerned.

Q But that is not a full return?

A That is a compensating consideration.

Q But so far as arriving at a rate base, which, I take it, you admit should be a present-day fair value, would you agree with me on that?

A Yes, that is a term we can always agree with.

Q You wouldn't agree that if the evidence before the Board as to future reserves and throughput is admittedly conservative, that the Board in applying the method which you suggest on Page 7 should make some allowance for that factor that I have just described to you?

A Providing at the same time it took it into account in determining the rate of return.

Q Going back for a moment to this initial rate base, and its being stable for the future?

A I do not know if I can help by a fuller statement on this point. Perhaps I can, Mr. Chambers.

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Q Yes, I would be very glad if you would.

A Subject to one qualification, I would agree with you. If we could take 1943 as a normal figure, then my argument would suggest that the full reproduction cost of 1943 should be taken. The one qualification is that I think on the basis of my suggestion you will notice that there is also the guarantee of original cost as a minimum. Now in that sense you are guaranteeing against loss which is some consideration, and perhaps then to give the full amount or reproduction cost, and in guaranteeing it against loss, in terms of something less than the original investment, that is quite generous.

Q Yes, but at the same time while guaranteeing against drop you are taking away the possibility of any benefits from increase?

A Well, if there was a change in the level of prices, the 1943 now becomes normal around which the prices vary, then I would agree subject to the other qualification.

Q Yes?

A That full reproduction cost at that price level should be taken.

Q And that brings up just a matter to which I intended to refer for a moment, and I think you touched it on it in your report, Professor Stewart. Are you familiar with the book, the Economics of Public Utility Regulation by Barnes?

A By Barnes?

Q Yes?

A No, it is not one that I am familiar with.

Q And I am referring to a statement that is found at Pages 567 and 568, and I am not going to take time to read them, but in effect he says there that some years ago, I think it was around 1930, yes, 1930, there was some discussion or some idea in the State of New York to introduce what they call a model bill to deal with this rate base business. Have you ever run across that, or know

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anything about that?

A Yes, I have seen it.

Q And I think that Professor Bonbright was one of the members of that commission, and they suggested that the desirable end is to have prudent investment. In other words, there should be stability rather than reproduction cost every time there is a rate base, and it was proposed in this model bill, one of the reasons it was proposed, was this Article 5 of the American Constitution about not depriving people of property without due process of law, and also in the sense of fairness, because the rules are being changed, this bill should provide that the initial rate base should be on reproduction cost less depreciation, and that that would form the initial prudent investment in the utility as such. Now, I take it, that you more or less agree with that statement, subject to the qualification whether the reproduction cost is at the peak?

A Yes. I would safeguard the utility against the application of that principle in a period of very low prices,

Q By giving it the right of choice?

A Yes, by giving it the right of choice.

THE CHAIRMAN: We will adjourn for a few minutes.
(At this juncture a short adjournment was taken).

MR. CHAMBERS: If the Board pleases, that concludes my cross-examination. Thanks very much, Professor Stewart.

THE CHAIRMAN: Now, before we have any further cross-examination, you all know that while I never attempt to curtail cross-examination, and I have no intention of doing so today, but Professor Stewart has entered into the period of examinations in the University, and if we do not finish with

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him tomorrow, he would not be able to come back until sometime in January. And if that could be kept in mind we might finish with him tomorrow.

MR. FENERTY: I do not think mine will be.....
I won't say how long but I do not think it will be so very long.

.....

CROSS-EXAMINATION BY MR. FENERTY.

Q Professor Stewart, on Page 1 of Exhibit 132, "It is possible, and desirable, to interpret the public interests more widely than that of the interests of the consumers immediately affected." I gather from that you make a distinction between public interest and the immediate consumers?

A That is so, yes.

Q And would you define the public interest that you had in mind?

A Well, the specific thing I had in mind is perhaps this one, mainly, one of the things that would greatly benefit the public generally would be greater stability, that is the avoidance of extreme fluctuations in prices and employment. I think that is one of the considerations which you might take into account in deciding methods of public utility regulation.

Q Would you mean, for instance, provincial interests, the interests of the Province as a whole?

A Yes, and wider than that.

Q And you would not think, for instance, that the City of Calgary or perhaps the City of Lethbridge was to be charged with the burden of the interest of the Province as a whole in supporting that interest, would you?

A I would think that they were primarily concerned with this within their own jurisdiction.

Q Yes. And did you perhaps also have in mind consumers of the future

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who might not be the consumers of the present?

A Yes, I think that the representatives of society have to think of the continuing society.

Q For instance, we might have a carbon black plant in Turner Valley at some time in the future?

A I would not know, but if that is so, yes.

Q But that is possible, that sort of thing is possible?

A Conceivable, yes.

Q We might even have a gas line plant with further refinements than the present production of the natural gasoline, you have heard of such a thing?

A Yes, that is conceivable.

Q We might even have another Ammonia Plant outside of the City limits of Calgary, somewhere between here and Turner Valley, perhaps?

A That is conceivable also.

Q So that the interests you have in mind are many and extensive beyond those of the people burning gas today in their furnaces and in their plants?

A I suggested that wider consideration as part of it.

Q And I take it that you will agree with me the protection of those wide interests does not rest exclusively with the people who happen to be on the Canadian Western gas lines today?

A No. I agree with that, yes.

Q Yes. And it would follow then that if those interests are to be protected, the protection must come at least in part from sources other than the people on those lines today?

A Yes.

Q Now before discussing some other portions of your report, I want to get your views on a matter that we discussed with Mr. Zinder, the previous witness, at some length. It had perhaps

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to do with competitive prices.

And during the giving of the evidence by Mr. Zinder, we had evidence as to prices of gas in other fields, various parts of the United States; and we had a brief before us which has been withdrawn and which is going to be revised, dealing with prices of other competitive fuels, coal to be specific. And I refer to some of the evidence. I think I am right in saying that Mr. Zinder's theory on the effect of competitive prices in Calgary of other fuels is that when you get a price of another fuel which would compete in the same market, you had established the maximum ceiling for the price of gas in Calgary. And I discussed with Mr. Zinder the position that if instead of coal and some other fuel we had before this Board a proposal for the supplying of gas at the present rate, assuming that that supply would come from a field comparable to the Turner Valley field in quality, I suggested to Mr. Zinder that that would set the maximum price for gas in Calgary. I think I will again refer to it. He agreed with me it would except for the matter of Government policy. I think that is putting it fairly. Now what would you say to that proposition, assuming that there was

A Under conditions of competition, a competitive set-up, there is only one price for the same commodity.

Q There is only one what?

A There is only one price for the same commodity.

Q I am inviting you to consider the position if there is placed before this Board an offer to supply gas in the City of Calgary or to the Canadian Western Gas Company we will say at the present price paid by the Canadian

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Western Company for Turner Valley gas, would you say that apart from some Government policy that should determine the ceiling and the highest price at which gas could be charged for?

A I would say that the uninfluenced choice of the Gas Company would be to buy from the cheapest source and that that would determine the price.

Q That would determine the maximum. Enquiry might establish that there might be a lesser rate probably available would it not?

A If that were the case then the lesser rate under competitive conditions would prevail.

Q That proposition would be the maximum would it not?

A Under competitive conditions.

Q Now I want to work out something with you if you will. Quite frankly I do not know the answers. I want you to consider the position which the Chairman invited us to consider when that proposition was put to Mr. Zinder. Page 4188. The Chairman's re-action at that time was as follows:

"The Chairman: Why should there not be a market sharing position as between fields, just as there is going to be a market sharing position as between the areas in Turner Valley and that the wholesale price to the Canadian Western would be a blending of the two."

That, I take it, refers to Government policy or Board policy. Now assuming for a moment you have such a policy and that it is going to be given effect to, a market sharing position and we are

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going to disregard competitive prices.

A Beg pardon?

Q We are going to disregard the competitive offers. We are going to have a market sharing position. Have you given any consideration to where that leads? Have you thought of that particular problem?

A Yes. I might say in connection with this particular submission of mine I was not primarily concerned with this sort of thing, this aspect of the problem, but I am quite willing to consider it.

Q I am going to discuss with you a couple of other enterprises. We have in Turner Valley a little company operating and distributing gas to householders in Turner Valley. The Valley Pipeline Company.

THE CHAIRMAN: The Valley Gas Company.

Q MR. FENERTY: Yes, the Valley Gas Company which gets its supply from the same source. We have the Northwest Utilities in the City of Edmonton which gets its supply from another source in the Province of Alberta. I have got three sources to discuss with you, the Viking field in the City of Edmonton and another at the moment, as far as you are concerned, a hypothetical field, which is not Turner Valley I may tell you but for the purposes of the record it is the Princess field that was discussed before; and the Turner Valley field. I want you to give me the benefit of your advice as an economist as to how you would handle that kind of situation once you eliminated the competitive features.

A We have shown considerable ingenuity in devising these schemes of allocation of market in cartellisation of

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sales and so on. Procedures are complicated and have to be adapted to a particular situation.

Q Yes.

A I can conceive that with sufficient legislative control of the situation that an effective scheme of that kind could be worked out. That is if it is not impractical

Q First of all would you concede that the City of Calgary, to take a particular municipality, should not be penalized in any result because of the fact that the Turner Valley field happened to be close to it. Is that sound economics?

A Excepting the term "penalize", I would think on the whole I would want to avoid penalizing any particular group of consumers.

MR. STEER: Should they not get benefits?

Q MR. FENERTY: We will start first with the proposition that because of the closeness of the field or because of the presence of the Turner Valley field close to the City of Calgary, they should not be penalized. You will agree with that?

A I think one consideration would be to avoid penalizing them.

Q And they should get some benefits shouldn't they?

A From the closeness of the field?

Q Yes.

A Well I see some tendency to get away from that. That is the competitive principle but there is apparently a tendency to get away from that. Now what the ultimate effect in terms of equity are, I am not sure. But in many cases we are seeing an attempt at unit operations which takes in larger areas and which combines different situations under one integrated scheme.

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Q I want you to just consider something which is purely hypothetical with me. Let us assume for a moment as a result of an agreement or the result of an inquiry that a reduction should be made in the rate for gas in the City of Edmonton, do you see. The City of Edmonton with the same rate we have. As a result of this inquiry an increase should be made in the rate in the City of Calgary. You have close to Calgary a field where they are prepared to supply gas to the City of Calgary at the present rate. You could not have that situation could you in any economic set-up?

A I do not think it is impossible. You could have it.

Q Not if you are going to consider this as a resource of the public as a whole, this natural gas in Alberta.

A It would not be consistent with that conception, no.

Q Is not this the situation, either you have got to consider it as a resource of this whole Province, with everybody sharing the benefits and the burdens, or if you are going to consider the City of Calgary alone you have to leave them to that competitive gas price from another field. It is one thing or the other is it not?

A Not necessarily, sir.

Q No. What would be the intermediate position?

A You could have in fact a differential price as between different markets. I mean it is not impossible.

Q In which the city that is nearer to the resources will pay more?

A We have other cases where that happens. People tell me that you can buy oranges in Canada cheaper than you can in California where they are grown. So that I say it is not impossible to have that.

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Q When you say that I understand you have in mind the protection of the utility. Is your conception of utility practice to adjust the apportionment as between the utility on the one hand and the consumer on the other? I mean you do give some consideration to the consumer.

A Yes, quite.

Q Do you think there is any possible set-up that having in mind the interests of both which would justify greater costs to those closer to the natural resource?

A My answer, Mr. Fenerty, is that it is not impossible.

Q That is not impossible?

A But my own judgment would be that it would be a bit undesirable.

Q You would not do it if you had charge of the operation?

A That is too hypothetical a question.

THE CHAIRMAN: At the moment, Mr. Fenerty, the gas rates in Edmonton are greater than the gas rates in Calgary. Do you think that that should be cured right away?

MR. HARVIE: I think so.

MR. FENERTY: What was that?

THE CHAIRMAN: Gas rates in Edmonton are greater than the gas rates in Calgary. If your theory is sound we should have that cured right away. That differential should not exist.

MR. FENERTY: I do not know what the result is. I do think this and I say it in all seriousness. Unless there is some Government Provincial policy dealing with a natural resource which is for the benefit of the people of this Province as a whole, in which case the obligations should be shared by the Province as a whole, that

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Mr. John Galloway's office or this Board should not settle the ceiling for gas in Calgary.

MR. CHAMBERS: Should you not say that to the Legislature?

MR. FENERTY: I have not said anything to the Legislature. I am not talking to the Legislature. I am going to talk to them.

MR. CHAMBERS: I wonder why you have not.

MR. FENERTY: I am content to take either way but I do not want to have both sides to the middle.

Q Now we will go on to something else. In discussing the basis of value and the basis of depreciation we have had discussions on proper rate base, proper rate of return and we have had discussions as to the effect of a high rate base and a low rate of return and the opposite situation and so on. I want to discuss with you what I think is a special situation in this Turner Valley area we have here. I want you to assume for a moment that there is a fixed and in all probability a falling market for dry gas from Turner Valley. When I speak of gas I am referring to residue gas. We have had estimates here from the Gas Company on future consumption which show reduction. Assuming for the moment that those are correct and that due perhaps to a change in war conditions, various centres go off the line. Others go off for other reasons. For instance I believe I am correct in saying that the Ogden Shops have already reconverted to coal. Assuming you have various things which probably result in a falling market and certainly preclude an increased market, at present prices for gas. That is the first thing I want you to assume. Then I want you to

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assume that evidence will indicate that the money available from that market, irrespective of increases and decreases in prices, will largely be the same in its total; that you will have a more or less fixed amount available. It might go up a hundred thousand dollars or down a hundred thousand dollars. But you will not have more than a certain amount available, we will say the present amount available from that market. You have got a fixed market and a certain amount of money to play with. I want you to assume that you have operating charges that will continue, wages and so on. You will have a rate of return which may or may not be fixed. What is going to be the situation if on the value you establish for the equipment in use the market will not provide the money to meet your amortization, yearly amortization rates and your rates of return and your other charges that must go on. How do you take care of that situation?

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- A The conditions you quote, am I right, it then becomes impossible to sell as much as is currently being sold at the same price as before, there is a declining market ?
- Q Yes.
- A Then if the price remains the same that means that less will be taken, the revenue will tend to fall off.
- Q Yes.
- A The effect, there would be less taken in that event, depending upon the method of allocating the reduced quantity between different people.
- Q Yes.
- A The individual operating cost would also be affected and on the whole I would expect that the provision of the service would become less profitable under those conditions.
- Q Do I gather from that that you mean that your allocation as between the different interests must be such as to preserve the only market there is for the dry gas ?
- A Well I am in this difficulty, Mr. Fenerty, that I am not very well informed on the particular condition in the Turner Valley field, but the general picture you present raises this picture in my mind, we are starting now from a position where there is a certain quantity being sold to this market at a certain price?
- Q Yes.
- A Now you propose that the demand decline, the market decline, at the same price less will be taken now, that is as I understand it.
- Q Let us take a simpler case, let us assume for the purposes of this, that the result of any orders which may be made or the conditions which are set, whether it is due to increased price or declining market or whatever produces it, the result is you have a more or less fixed amount of money available ?

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A Yes.

Q Which, after providing for operating charges such as wages and those things, will not provide the rate of return you have provided for and will not provide the rate base, the amortization of the rate base you have arrived at, what do you think ?

A Well your regulations are ineffective under those conditions, they would have to be revised.

Q Do you treat that as what you might call "functional depreciation" and revise your estimates of the value of the equipment on the basis of so much more functional depreciation ?

A If that were the permanent figures of the demand it could be approached that way.

Q Never mind the demand, just the permanent, more or less permanent amount of money available ?

A Yes.

Q Should that be treated as an element involving functional depreciation of the equipment ?

A I am afraid I do not quite follow you.

Q You see there is no use finding a value for equipment and a rate base, that the utility should get, that results in that utility losing its only market, is that right ?

A That is right if that represents the result of the permanent change.

Q If on some principle that we have discussed, you arrive at that conclusion, then for this particular field that principle is wrong, is it not ?

A Yes.

Q And you have to find something else and you have to get, to find a principle which will preserve the market for the utility?

A I think the conditions which you are asking me to assume are

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perhaps comparable to those of the railway days. Now the ordinary principles of public utility regulation cannot be applied to either the Canadian or the American railways and the principle now is to get what you can.

Q I see. I was wondering whether you would get at that by re-adjusting your ideas of the value of the property used to produce that result and charging up something more by the way of functional depreciation?

A Well that would be one way.

Q Yes.

A Of arriving at the result, I mean you are saying, well, you have the same rate base as before but obviously you cannot earn 8%, the most you can earn is 7%, so we will say 7% is what you get.

Q Yes.

A You can say that the rate base had been reduced, it would be the same thing as if the rate base had been reduced.

Q Now so that I suggest to you that if you should have that special situation the statement on Page 3 of Exhibit 132 that:

"The allowance should be based upon cost and not on evidence of capacity to derive earnings".

That statement would not apply to that particular situation that I have described to you, would it?

A Would you show me that.

Q It is near the top of the page, right here. (Indicating)

A Yes, I see, that statement is consistent with the general principle of regulation but under the conditions you assume those conditions would not be operative.

Q Yes, and would you agree with the proposition that I put to other witnesses, found in "Barnes, on 'The Economics of Public Utility Regulation':

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"If the inability of the Company to earn the full return is the result of an investment which is out of proportion to the market which the utility is serving, the loss must fall on the security holders for the responsibility for the unprofitable condition cannot be placed on the consumers".

Would that be a general proposition ?

A I would agree with that.

Q And would you go further and say if that situation arises as a result of an investment made in the interests of the public as a whole, this wider public we have been discussing, that the loss would fall somewhere other than on the gas consumer of the City of Calgary ?

A That question has an equity involved there, I think that would be in line with current thinking on the subject of the general responsibility.

Q We are discussing this whole thing on the basis of reasonableness, what is fair and just to everybody, and to the public as a whole, and that would be your conclusion on that basis ?

A Yes.

Q Then I want to refer you to something which Mr. Hill said when he was being examined on the stand here, which I think is along the same line, Page 1780, I hope I brought it with me, yes, in giving his views as to costs, as to the method of determining costs, which incidentally do not agree entirely with yours, and he finishes up by saying:

"They should consider the value of the services, that is what the property is worth to its users, and they should consider that as a maximum rate above which they should not go, no matter what rate base they use. That is the top. They must not go higher than the product is worth because

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if they do the users will not buy it".

That is sound, is it not ?

A Well I agree with the last part, the term "value of the services" is to my mind an unsatisfactory term. If he means that if you put the price up beyond a certain level the amount taken of the services will fall off so greatly, then it might be, it would be better under those conditions not to raise the price so high.

Q Yes, but I go backwards, you have agreed with me, have you not, that if you are going to consider other than the competitive price from another gas field, on the higher ground of the public interest, that any increased cost resulting from those higher grounds should fall on those public interests which are referred to ?

A As I say, Mr. Fenerty, that question of the general application of social responsibility has to be considered.

Q I mean it is - -

A I can only express my personal opinion on that.

Q Yes.

A And that is that I am personally inclined to distribute those burdens fairly widely.

Q But in your present opinion it is unfair, - no matter what the City of Calgary may think of itself, - that it should be charged with the preserving of the public interests of the Province of Alberta, just by itself ?

A I would have difficulty supporting that.

Q Yes, I would think so.

A In supporting that position, yes.

Q Now, Prof. Stewart, I was interested in several of the propositions which my friend Mr. Chambers put to you and to

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which I understood you to agree. "Consumption is the end of all production", you agree with that ?

A Subject to one minor modification, I agree with that.

Q And it follows then I take it from that that on a normal operation there should be no production without consumption, without the market being there ?

A Certainly under competitive conditions it will not last very long unless there is.

Q But I mean that is the result of that law "Consumption is the end of all production" ?

A Yes.

Q Then normally, except for special reasons, there should be no production unless the consumption was available ?

A Yes, quite often we do initial production of a new thing and then develop the market for it.

Q Yes, but if there is production without a market, as an incident of another commercial operation, and that product has no market, it is a waste product normally, is it not ?

A If they continued to produce it and cannot sell it.

Q Yes.

A We would be wasting our energies in doing it.

Q It is a waste product and as a waste product, - as a waste product, - having to do with no market, if it cannot be preserved it is of no value as a waste product ?

A As a waste product ?

Q Yes.

A Yes.

Q And if someone takes that waste product which has no value and by spending money on it creates a value, that value or that benefit should belong to the parties expending the money on it,

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for creating a value which was non-existent before ?

A That seems to be reasonable, yes, if you take something which has no value and transform it or move it to a place where it has a value, that is a useful service for which gains and losses perhaps might result.

Q Now I want you to picture for a moment the production of dry gas in the summer months in Turner Valley, which at one time was flared because there was no market for it, you see ?

A Yes.

Q And money being expended on that gas to put it back in the reservoir, I suggest to you you have the exact situation which we have just been discussing ?

A Yes. Of course this is being preserved as a function for those people to perform, it is being undertaken not entirely on their own volition.

Q I want you to keep in your mind the picture as I see it in Turner Valley, and if I am wrong it is just too bad, I want you to get in your mind the picture, that you have oil wells producing oil, I am going to refer only to oil wells for the moment; that as an incident of that production they produce, - they have down stream from the separator wet gas, - that gas is transported through pipelines to an absorption plant; that the gasoline content or a large part of it is extracted; that if there is a market for that product it is used and if there is not it is flared; that being the picture prior to this enquiry, and that is the general picture I am talking about, but I want you to picture this, as a result of certain Government policies and acts, a portion of that dry gas finds its way to the market but that in certain periods of the year, as a result of oil operations, there is a surplus, that there

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is no market for it, you are faced with flaring it or repressurizing it ?

A Yes.

Q And money is spent on repressuring rather than on flaring ?

A Yes.

Q Now what I am suggesting to you is that on the general principles we have enunciated, you produce that as a waste product, as an incident of oil production, that that additional value belongs to those who spend the money to recapture it and create the value, that would be sound economics, would it not ?

A Well there are certain risks involved in that. The question of the burden of the risk is surely significant, I mean this procedure is being imposed by legislation, that is correct is it not ?

Q No.

A On certain people.

Q The flaring or the repressuring is an incident of the production allowed these wells by another body, the Conservation Board ?

A Yes.

Q They are entitled to produce it as residue fluid we call it ?

A Yes.

Q And pursuant to their rights to produce, they insist, and I think very properly insist on producing and recovering oil, crude oil, and a share of the gasoline content at a time when there is no market for the residue dry gas, and if you do not do something with it it has to be burned and if you do something with it, - I say we have agreed that that is a by-product, a waste product, from that oil operation ?

A Well a by-product and a waste product are different things.

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Q It is a waste product because there is no market ?

A Well all right then.

Q And somebody, I do not care who it is going to be, somebody creates a value for it by repressuring it and putting it into the earth, into the structure ?

A Yes.

Q I say that it is fundamental, is it not, as a matter of economics, a matter of substantial justice if you want to say, that those who create the value should get the benefit, have the title, would you not say so ?

A Yes, but there is a risk there.

MR. FENERTY: I will leave that.

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Q Then I suggest to you that if you are going to have a waste product as a result of the operation of the oil industry and we assume that the oil industry is not going to be shut down, it is going to be permitted to operate, and at various seasons you are going to have this waste product. I am going to ask you to apply the supposition we have got so far that you must not have a rate base or a rate which will result in the loss of the market, any market you do have for your dry gas?

A It seems to me Mr. Fenerty, that brings us back to the problem of risk of undertaking the expenditures necessary to provide the value.

Q Perhaps so but what I had in mind and I will get you to think of this for the moment. You have a waste product in certain seasons of the year and you have an obligation if you are going to accomplish anything to get a rate, a price, to the Gas Company which will permit that Gas Company to sell this product. You must not lose your market you see?

A Yes.

Q And I suggest to you that under those circumstances the only possible approach to the problem that confronts us is to find out what is going to be left for the well owner that produces that gas at the time he cannot sell it or even the time he can sell it when it is an incident to oil operation. You have got to work from the top down and find out what is left for this residue of oil operation?

A Well I do not think that necessarily follows, Mr. Fenerty, in terms of the wider public interest you were talking about a little while ago. It would be possible at least to conceive of subsidizing this particular transaction.

Q Leave out that step. If you want to say government policy,

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but I am talking about the situation generally ?

A Under competitive conditions which is the alternative because nobody is going to do this unless they see they are going to recover their expenditure out of the price they are going to get.

Q You will agree with me so far as government policy and so far as rights and benefits and everything else of the public as a whole, those are things which should be shared in by all of the public if it is going to be government policy it is not going to be directed to Lethbridge or Calgary ?

A No, that confirms my own view.

Q So we are going to ask you to forget public policy because that will call upon all the citizens of the Province of Alberta to speak of this little operation here. You have agreed with me it is not a bit of use fixing a ten cent gas at the well and a progressive change of rate base for this and that which results in a dollar and a half gas in Calgary. I am taking the extreme figures for the purpose ?

A Yes.

Q If you cannot sell the gas ?

A I agree with that.

Q Then I say you have got gas here. You have got this waste gas and I want you to picture this, that as far as a gas operation alone is concerned, you do not have these problems. You just take the gas out of the ground as you use it. We have a lot of problems here as an incident of oil operation and you have waste product as an incident of oil operation. I think we get that. I say when you have got that situation and there is not a bit of use fixing the price at the well head which will deprive you beyond the market. Have you not

CHAPTER II

The first of the principal objects of the present work is to show that the theory of the differential calculus is not a mere collection of rules, but a system of principles, which, when properly understood, will enable the student to derive the rules for himself, and to apply them to the solution of the most difficult problems.

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got to work from the other way to find out what is there and to find out what is waste ?

A Yes it is the consumer's price which determines the price of the various stages back, but mind you the producer has a large say under competition in determining as to whether or not he is going to do this job of continuing to produce.

Q But where you have got a problem partly resulting in the production of a waste product, don't you find competition, prices and everything else is left for the waste, is that not so ?

A Yes, but then if there is any expense involved in the handling or processing of the waste, that is another consideration.

Q All right we will leave that then. Before I go to something else I want to ask you one thing. On Page 4 of Exhibit 132, the third paragraph down.

"Every investment should be assumed to have been made with the exercise of wise judgment unless clear evidence to the contrary can be produced".

A Exhibit 132, Page 4 ?

Q Yes, the fourth paragraph.

A Yes I have got it.

Q Now I want you to picture a situation where that is correct, eminently correct, that the investment has been made pursuant to wise judgment or hope we will say and the wise one in relation to another industry, an oil industry, or a natural gas industry, natural gasoline, which does not correspond in any sense with the cost of investment which would be made in connection with a natural gas industry alone. You see, let us assume for a moment the investment is much greater because it was made as a proper setup for an oil operation and when you come to take those particular things that have cost perhaps

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more or less, perhaps three times as much, perhaps only a little more, an investment that would be made for the production of dry gas alone, how do you value them for a dry gas industry. Have you functional depreciation or what do you do. You do not take reconstruction costs do you ?

A Well in the case of over-heads or joint costs of that kind there is no clear principle that I know of for allocating costs between joint products.

Q A substantial justice would perhaps be to assess against the industry a fraction of the cost, taking those things all into consideration, would it not ?

A Some fraction yes. Do you mean writing down rather than taking the full amount of the cost, just taking some part of the cost.

Q I suggest to you it would be fair to start with what would be a reasonable value for the equipment and the development suitable for a dry gas industry and then make some apportionment. What do you think of that ?

A I find it very difficult just to visualize the conditions you are describing. Your proposition rests upon the assumption that one of the products is a waste product, does it ?

Q No, perhaps I should have but I have not. I was getting away from that. I am simply saying now in dealing with rate bases and depreciation and without reference to the waste product, I say that you have a plant which you set... oh yes you were talking about the investment. I am talking about construction. We will assume it is properly constructed but it has been constructed with a view to another operation, that is an oil operation. They have located things in such a way looking for oil, gathering lines for oil.

A Do you ever get oil without gas. I do not know.

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Q Not in Turner Valley. You get lots of gas with pumping - as a pumping proposition in other places.

A When you get oil you expect to get gas.

Q In Turner Valley you do but there are plenty of pumping propositions usually with a heavier production in other fields in the world.

A My point is that when you drill a hole you can reasonably expect to get both oil and gas in a certain part of the field.

Q Well in 1914 I told you yes without hesitation but now I do not know. But put it this way, so far as the problem in front of you is concerned that you cannot produce oil without gas. Gas is a lift, performs the function of lifting the oil. That is the Turner Valley situation, and there is no way of getting that crude oil out without having a lot of gas come up with it. That is why we talk about the residue and allowables for the well. I say to you now that the investment which results in this case we are talking about which results in this gas being produced is a different investment in quantities than what had been made in order to produce gas for market, just gas as such.

A Well if you have got to have the two together how can we consider that situation.

Q I will put it this way.

A I mean, let me take a homely illustration. A dairy man produces milk. We say that is what he is producing, but he has got to sell some cattle too.

Q I want you to assume there is evidence before this Board that for a gas operation alone as distinguished from searching for oil, that wells will be drilled in different locations, the spacings would be different, the gathering lines might be different, the cost might be different, and I want you to

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assume for the moment, it may or may not be true, that the costs in connection with the oil operations are very much in excess of what they would have been to obtain a similar quantity of gas, you see. When you are fixing a rate base for the gas operations you would discount those costs. Would you ?

A I hardly think so. If the actual conditions that you cannot get the one without the other, I mean if you ask me to assume an entirely different set of conditions then I say the conditions are not comparable.

Q Then I will leave that. All right.

MR. HARVIE: I do not like to interfere with Mr. Fenerty but I would like to hear the witness complete that.

MR. FENERTY: I am sorry you have not completed that.

MR. HARVIE: About the cows and the milk.

A They are two products which necessarily emerge from the one process and while we may say that a man is a dairyman and is producing milk, he is still interested in the returns which he gets from cattle and to some extent the price of cattle will affect his whole operations. They are inseparable things when the two necessarily emerge from the one operation.

THE CHAIRMAN: You cannot get the milk without having the calves.

A I have not seen that happen yet.

Q MR. FENERTY: Then go one step further than that. Let us assume and merely hypothetically, an oil operator has incurred heavy expenditure because he was drilling for oil and has been successful in getting oil and he has produced for a long period of years and he has had his well on the line to the absorption plant and has got his oil and his share of the absorption returns, natural gasoline, you see and as a result of those

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operations he and other operators have depleted the gas field to a very large extent, and as a result of using that gas for a lift they have had profitable operations and they have received a return on their investment and the profits to some extent at the expense of the gas field. Do you make any allowance for that situation when you come to figure rate base and the life of the field and the amortization rate ?

A I have difficulty with your statement at the expense of the gas field. Things are just inseparable to me. I do not quite get the significance "at the expense of". If an action is at the expense of something else, then I would certainly conclude there should be some compensation for that, but my difficulty is with just the significance of the term, "at the expense of", under these conditions, but if you want to let it go, if it is "at the expense of", then I think some compensation or some consideration.....

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Q I will leave it at that. I want to get on with something here that I think is of more importance to me. It is the question of historical costs. Before I come to that, I have something else. Now you will probably gather that I am trying to approach this from the point of view of the consumer while recognizing the interests of the producer. Now, I want you to consider this problem from the point of view of the consumer. I want to refer you to Section 49, subsection (2) of the Natural Gas Utilities Act, dealing with the powers of the Board in fixing the prices, the prices or value of real and personal property, "and without restricting the generality of the foregoing the Board in fixing such prices or values shall determine the just and reasonable allowance for depreciation and in so doing may" - not shall but may, - "take into account depreciation already taken by the owner or any antecedent owner of such property."

Now, I suggest to you that in the case of the successful business operation that the amount taken on its books by that business for depreciation is not a bookkeeping entry only. It represents an amount of cash that the company has obtained or retained and is available to do what it likes with. It is actually cash in its corporate pocket.

A I do not think it is necessary to be cash.

Q Well it may change into something else but it can get it in the form of cash if it wants?

A It could, yes.

Q It has got that, you see?

A Yes.

Q And I want you to assume that the Royalite operations were successful operations, so much so that witnesses have suggested an amount for going value in fixing the price of equipment because

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of its successful operation. Take that for granted, that the Royalite operation was successful. And it follows that the Royalite Company has had, I say in its corporate pocket, the amount in cash that is charged on its books for depreciation. Do you get that point?

A Yes.

Q Then I want you to follow the picture, as I see it here, that in 1921 - first of all I want you to follow this picture, that the price paid by the Canadian Western Company to the Royalite Company for the gas it had in turn sold to the consumer, was dealt with by contract, and that in 1921, we had a contract under which the Gas Company paid the Royalite Company, I think it was 13 cents.

MR. STEER:

That is right.

Q MR. FENERTY: 13 cents, and that in 1925 under another contract, Exhibit 69, we have it here, that rate was reduced to 9 and 10 cents, depending on its use. And then I want you to remember that in Section 57, subsection (3) of the Public Utilities Act which came in, the Public Utilities Act in 1923, do you know of that section?

A No.

Q Which provides, that is, the Public Utilities Board, that is another Board, you understand?

A Yes.

Q That "The Board shall have jurisdiction over every contract or agreement entered into on or after the first day of May, 1923, between any proprietor of a public utility and any other corporation or person for supplying to the said proprietor natural gas, or for the transportation, scrubbing" and so on.

I want you to have that section in mind. And then I want you

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to assume that following the enactment of that section by contract again between the Royalite Company and the Gas Company that in 1928, the amendment was in '27, that in 1928 the price to the Gas Company was reduced to $7\frac{3}{4}$ cents, the present price?

A That is, from 13 cents in 1921 to 9 cents in '23 and to $7\frac{3}{4}$ cents in '28?

Q Yes. And that in 1928 the price by agreement was reduced to $7\frac{3}{4}$ cents, and that at that time there was a provision that if that price was not satisfactory either to the Board or any interested parties, the matter might be dealt with by the Board on its own initiative or by the interested parties under the section I have just referred you to. Then I want you to assume, something which you have no knowledge of, that rates charged by the Gas Company, to the public for the gas is the subject matter of regulation by the Utility Board, and that that price of $7\frac{3}{4}$ cents to the Gas Company is one of the elements making up the rate to the public from the Gas Company. It is passed on to the public by the Gas Company. And I want you further to assume that the Royalite Company, being a successful operation, it has received in cash in its corporate pocket, as I said, its book depreciation out of that $7\frac{3}{4}$ cents it got from the Gas Company and which the public paid. Do you follow that picture?

A Since 1928?

Q Well it has got $7\frac{3}{4}$ cents since 1928, and it got more before that, but that will do for the moment. Now then, it follows from that chain, does it not, that the consumer has paid to the Gas Company through the Royalite Company in cash, the depreciation charged up in the Royalite Company's books on this equipment?

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A Well I do not know anything about the dividends declared. It is possible that the reserve for depreciation could be put up that way.

Q There might be an adjustment between dividends and the reserves, but I am going to ask you for a moment to assume that the depreciation charges are proper.

A You are asking me to assume if they have done what?

Q The Royalite has charged depreciation whether proper or not, I will come to that in a minute. Assuming they have charged a proper depreciation, I say that the consumer has paid to the Royalite Company in cash 40, 50, 60, 70 or 100%, whatever the depreciation on the equipment has been charged up as.

A Well I am not prepared to recommend the taking of book depreciation as the basis.

Q No, no. I was going to leave it or suggest that you might do it after you are finished. What I want at the moment is.....

A I am sorry.

Q You are just too far ahead of me. You just devote your mind to the immediate problem and let the chips fall where they may. Now, that is so, the consumer has paid?

A That is correct.

Q And the Public Utilities Board has provided in a rate for the Gas Company which will enable that to be paid to the Royalite Company, the depreciation which is taken, that is so?

A Yes, including the period unregulated.

Q And that depreciation is, of course, a percentage of the book values, that is the way the Company takes its depreciation?

A But does it? There is Mr. Hlsley's form that considers that too.

Q I should make another assumption, that that depreciation is by way of the percentage of the book value of the equipment?

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A Yes.

Q Now, let us say then for a moment, that now we have got this Hearing, my friend calls it coming before the Public Utilities Board for the first time. I say it is just continuing to come before it. But that is a matter of argument before the Board. We have now come to this Hearing, and the successor, the managing company, proposes to in an era of rising prices, to substitute for the book values the replacement costs, and I think, observed depreciation, and if that results in less depreciation than has been taken and greater values in the book values, and if that is going to be passed on to the consumer he is paying for the same equipment twice, isn't he?

A It is conceivable that he would be paying for it, yes.

Q Yes. And I think where the Royalite Company with the same equipment and the owner or the owners of all the shares in the Madison has been protected in that depreciation it took by the rate fixed by the Board to the Gas Company, that this wholly owned subsidiary should, in the interests of both sides, be permitted to take it or get it from the public price.

A Well, in dealing with particular cases, and this is a particular case, under the conditions you have laid down, it is difficult to take the position that observed depreciation - but, laying it down as a general principle in advance of regulation what are you going to do, then I think the only thing to say is when you come to a point, the initial valuation you are proceeding from the books to the inspection of the property, because this case might have been an entirely different one.

Q But it is something to think about isn't it?

A I would say so, yes.

Q And it is cogent argument, isn't it, for original cost and book

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depreciation?

A Yes, as a permanent principle. When I say it is something to think about, I say it is very interesting for me to think about. I do not know whether it is a significantly relevant thing for the Commission to think about.

Q I think we will leave it for the moment. Now, Professor Stewart, if depreciation is taken by a utility on the basis of a percentage of the book values, I think I am safe in saying that is what must be done as far as the Income Tax procedure is concerned, am I not?

A I think there are specific rates, yes.

Q If it is taken on that basis, and if the Board has power to take into account the depreciation taken by an antecedent owner, it necessarily follows that in a case where it exercises that power it must consider it in relation to original costs or book costs, isn't it so?

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A It is much clearer in that case. I do not think it is impossible to consider it in relation to reproduction cost. Again it is a question of proportionality. That is if depreciation is written of at say 10% each year then in five years the plant is half depreciated through the books.

Q Yes.

A Now if you then set a rate base on reproduction costs, proportionality still holds.

Q But surely you cannot make it a depreciation on the basis of 10% on one item and apply that amount. It may be 5% on another item. Do you see what I am getting at? If you take present-day book values and it is proper to consider depreciation on the basis of that taken by the owner, and the owner has taken it on the basis of the present day and on the book costs, you necessarily have to consider book costs to give effect to that section of the Act.

A I would not say necessarily. I think it is much clearer on that basis.

Q You will agree with me, will you not, that anybody with a knowledge of accounting or economics can only come to the conclusion that must have been the intention of that section?

A That is the section which reads : "May take into consideration".

Q It may.

A Yes.

Q May.

A Would you mind reading that section again?

Q "Without restricting the generality of the foregoing, the Board" Well, I will read the whole section. Have you got it in front of you?

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A Yes.

Q Perhaps you will read it.

A "In fixing and determining prices or values of any real or personal property for any of the purposes of this Act, the Board shall not be bound by the price paid by the owner or the replacement cost or by any book values however established by the owner for such property, but may adopt any basis or formula which to it shall appear just and reasonable, and in particular and without restricting the generality of the foregoing, the Board, in fixing such prices or values, shall determine the just and reasonable allowance for depreciation and in so doing may take into account depreciation already taken by the owner or any antecedent owner of such property."

I see your point now. I think it does, if anything, it would imply the actual depreciation taken rather than the proportion of depreciation.

Q On the book values. You see they have taken the present-day book values.

A If anything I would so interpret it.

Q You have told my learned friend, Mr. Chambers, that it is of some importance or at least desirable to have one system of taking depreciation in a public utility, have you not or have you? Some fixed policy.

A Yes. I think it would be better to have some general policy.

Q And if you should have a fixed policy and the proper application of this section involves book values as a basis, and you do not allow book values and if you have some other fixed policy you never can apply that section can you?

A That seems logical.

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Q Is that not so if you stick to your system?

A- If that means that depreciation may be determined on the basis of book value, then you cannot apply that principle unless you use book value.

Q I think the Board will tell you as a proposition of law that it is incumbent on anybody interpreting a statute, they are to give some meaning to something the legislature has enacted.

A That was the intention of that section.

Q I say it follows from what we have discussed that the only way you can give meaning to that section on depreciation is that the taking of book values was contemplated. I think that seems to link it all up.

A Was that a question, Mr. Fenerty?

Q I say the practical result from the merry-go-round we have had is that the only way, if you are going to have some system to determine on or for making values and so on, that the only way you can give effect to that section and still preserve some uniform system is to take book values as a basis.

A I would not be prepared to go quite as far as that, Mr. Fenerty, I am afraid that you are correct that that was the intention. I do not think one would have to conclude from that section that was the intention. However, I would go so far as to say it looks to me as if the probability is that.

Q I think I will finish by one. I hope so. I want to get you to talk about another matter. We have had a discussion with Mr. Hamilton about certain costs, upwards of a quarter of a million dollars which it appears he has reason to believe from his examination of the Royalite Company's books were

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charged against income. He suggests that it might be proper - again because of regulation for the first time, which I still do not agree with - to charge those to capital and thus increasing the rate base by some quarter of a million dollars. Now you would appreciate, would you not, that by charging those expenditures to income the income tax paid by the Royalite Company has necessarily been reduced.

A Correct.

Q And by turning around and charging them to capital, the amount paid by the consumer might be substantially increased.

A Yes.

Q I suggest to you that the propriety of charging any expense to capital or income depends on the nature of the expense.

A Yes.

Q And the nature of the expense does not change when you are before the Income Tax Board or a Utility Board.

A No.

Q It is either right or wrong wherever you charge it, no matter what Board you are before.

A You are right or wrong for a particular purpose.

Q Right or wrong absolutely. It is either a proper charge against income or it is not, is it not?

A I think these are things that are all fictions we create to help us make things happen.

Q Let us see if this would not be right or wrong. You do not agree with me that the nature of that expense determines where it goes, no matter what Board you are before.

A No matter what?

Q What Board you are before.

A Board?

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- Q Yes. No matter whether you are before the Board of Revenue or the Utility Board it is still either properly chargeable to capital or properly chargeable to income.
- A It seems to me that in the allowance made for income tax they might make a different distribution of expenditures than an accountant would do setting up books for a utility.
- Q I am going to ask you to assume that unlike definitions of income where perhaps we have statutory definitions of income in the Act you have no special statutory provisions determining what is charged to capital and what is charged to income. Get away from any statutory provision at all. It must be either a capital expense or an income expense, must it not?
- A For utility purposes I would say it must be one or the other.
- Q And did you not tell me it depended on the nature of the expense. That is the reason I asked that question.
- A Yes, but for that purpose I was thinking of Public Utility control. If that is the purpose of things, then certain things are capital expenditure and certain things are current expenditure. There should be a clear definition of those.
- Q I want you to follow this. Let us assume for the moment that for the purpose of income tax then, we will say, an expense has been charged to income. Let us assume for the moment that that system is still being pursued. That is the system of bookkeeping. It is being approved of by the Income Tax Department. They are recognizing these as proper charges. Now the effect of that is that the public as a whole, including this small fraction which happens to be burning gas, have paid those expenses. They have had that much less revenue have they not?
- A If the elimination of that item from current expenditures

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would have enabled the rate base to be reduced then the consumer would pay that amount.

Q The point I am getting at is this that if the expenditure has been charged to income, reducing the taxable income of the company.

A Yes.

Q It pays less taxes.

A Right.

Q And the public as a whole has less money from that company.

A There is less public revenue.

Q And as the public you are including these gas burners, they are a fraction? They have lost money because of that system. Then when you come before the Utility Board and you reverse the proposition, and you say that is not a proper charge to income, that is properly added to capital, you see.

A Yes.

Q This particular section of the public as a result of that pays for it does it not? That is right is it not?

A Yes.

Q I say then on this proposition of switching your charges to income and capital, you have got one section of the public paying for it completely and that same section paying a fraction of it twice.

A Yes. That is exactly why I do not like taking the book records for initial valuation.

Q I am not sure when you have two places where the public is paying twice that you have not got them paying four times over. I think that is probably so, is it not?

A There is a duplication.

Q I am going to suggest to you, Professor Stewart, with that

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history I have outlined to you, that the indirect payments to the Royalite Company, the owner of the wholly owned subsidiary, Madison, by the people, the consumers, and the resultant payment twice over of the charges, depreciation charges and other items, which had been protected by the Orders made in connection with the Gas Company's rates, removes this problem entirely from a situation that you would consider where an industry comes under regulation for the first time.

A Not in terms of general principle.

Q Do you think it might be a reason for giving consideration to other principles, I will put it that way?

A No, on the whole I cannot subscribe to that as a general principle. As I say, we have to decide, either we are going to take things as they are now - if we are going to take the book records and I say that when a company comes under, as a general principle when a company comes under regulation for the first time, we should dispense with the consideration of the books because there are too many irrelevancies that might enter into it. We go right to the present position.

Q I want to put another proposition to you and then I think I am through. I would like you to listen to this carefully. Let us assume that you have a gas operation carried on by the Royalite Company with certain equipment part of a unitized operation, you see. Then you have a severance of those operations with the incorporation of a wholly owned subsidiary, Madison. Assume those facts to be so. So that there is a transfer to the subsidiary of the equipment used in that particular operation, the same equipment. There is a continuation of that same operation by the same subsidiary and the parent company, while a separate, corporate

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entity, is the beneficial owner - and I will use those words - of the subsidiary in the sense that it owns all of the shares and its losses and profits are reflected to that company. You have this added factor that I suggest is present that a substantial portion of the cost of that equipment transferred to the wholly owned subsidiary has been paid by consumers through this rate to the Canadian Western Company. I suggest to you that that is the strongest case that could be conceived for the application of the principles which the Board may use as outlined in Section 49-2.

A That is the one we read before.

Q Yes, would you agree with me?

A I still take the position that subject to the interpretation of that, that my own judgment would be that past history should not be taken into account.

Q Leaving out your own judgment, would you agree with me that when you have got a set of facts such as I have outlined, that that would give you the strongest possible set of facts calling, if anything calls for it, for the application of those principles. Read them over.

A Yes, I would agree with you.

Q Then it follows that if you have the strongest case for the application of those principles and you do not apply them, you never could have a case where you should apply them.

A The strongest case for considering

Q I thought we just agreed it was the strongest case you could think of for the application of those principles. Were those not the words we used, is it not?

A No, it is the strongest case I said where you could apply

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those principles.

Q All right. Then if that is the strongest case for consideration and you do not apply it, then you never could have any case where you should consider them, could you, if you do not do it in the strongest?

A I would agree with that, yes.

Q And the result is ^{if} you do not apply it in this case, the act is meaningless, that is your conclusion is it not?

A I am sorry, this is wholly outside of my field.

THE CHAIRMAN: Professor Stewart, perhaps you had better leave the meaning of the sections to me.

A I would much prefer doing so.

MR. FENERTY: I said I would finish at one and I am through.

THE CHAIRMAN: We will adjourn then.

(The Hearing was here adjourned, to be resumed at 9.30 A.M.
December 5, 1945.)

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